

<b>Notice of Allowability</b>	Application No.	Applicant(s)
	09/912,191 Examiner	ERICKSON ET AL. Art Unit
	Khanh Tran	2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to the Application filed 07/24/2001.

2.  The allowed claim(s) is/are 1-19.

3.  The drawings filed on 24 July 2001 are accepted by the Examiner.

4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftperson's Patent Drawing Review ( PTO-948) attached  
1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- 1.  Notice of References Cited (PTO-892)
- 2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
- 4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
- 5.  Notice of Informal Patent Application (PTO-152)
- 6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
- 7.  Examiner's Amendment/Comment
- 8.  Examiner's Statement of Reasons for Allowance
- 9.  Other \_\_\_\_\_.

TESFALEGET BOCLIE  
PRIMARY EXAMINER

Part of Paper No./Mail Date 20050127

## DETAILED ACTION

### ***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

1. Regarding claim 1, claim 1 is allowable over prior art of record since the cited references, taken individually or in combination, fail to particularly disclose a method of separating noise from a signal on a signal line to a digital circuit, the method comprising uniquely distinct features "clocking output from the timer relative to a slow clock, the slow clock being slower than the fast clock". It is noted that the closest prior art, Wakabayashi (US 5,199,048), discloses in figure 1b very similar structure of the digital noise filter as claimed in the patent application. However, Wakabayashi fails to anticipate or render the above underlined limitations obvious.

2. Regarding claim 14, claim 14 is allowable over prior art of record since the cited references, taken individually or in combination, fail to particularly disclose a logic apparatus for filtering noise from a signal on a signal line to a digital circuit, the logic apparatus comprising uniquely distinct features "clocking a latch to a value of the signal line and relative to a slow clock, the slow clock being slower than the fast clock". It is noted that the closest prior art, Wakabayashi (US 5,199,048), discloses in figure 1b very similar structure of the digital noise filter as claimed in the patent application. However, Wakabayashi fails to anticipate or render the above underlined limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wakabayashi U.S. Patent 5,199,048 discloses "Noise Canceller For Keying Pulse In CATV Converter".

Chang U.S. Patent 5,001,374 discloses "Digital Filter For Removing Short Duration Noise".

Shimomura et al. U.S. Patent 5,572,549 discloses "Noise Cancel Circuit Capable Of Cancelling Noise From A Pulse Signal".

Monticelli U.S. Patent 4,431,930 discloses "Digital Time Domain Noise Filter".

Becker et al. U.S. Patent 6,337,649 discloses "Comparator Digital Noise Filter".

Dupre U.S. Patent 5,386,159 discloses "Glitch Suppressor Circuit And Method".

Ohmori et al. U.S. Patent 4,775,840 discloses "Noise Removing Circuit".

Sun, X. Z., Venetsanopoulos, Anastasios N., "Adaptive Schemes for Noise Filtering and Edge Detection by Use of Local Statistics", January 1988, IEEE Transactions on Circuits and Systems, VOL. 35, NO. 1.

Lee, Kyu-Cheol, Sohn Kwang-Hoon, Huh, Young, "An Efficient Approach to Impulsive Noise Filtering", 12-16 October 1998, Signal Processing Proceedings 1998, ICSP '98. 1998 Fourth International Conference on, Volume: 2, Pages: 1021-1024.

Wu, Chung-Bin, Liu Bin-Da, Yang, Jar-Ferr, Hsia, Shih-Chang, "Algorithm of Digital Impulse Noise Cancellation", Circuits and Systems, 24-27 November 1998. IEEE APCCAS 1998. The 1998 IEEE Asia-Pacific Conference on, Pages 319-322.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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